Conceptual understanding is vital for students’ learning, particularly for higher level courses which rely on synoptic learning. ‘Concept Bites’\textsuperscript{1,2} based on the work by Lancaster\textsuperscript{3} were presented as short 5-8 slide presentations (below right) with embedded audio, shared on YouTube, and on the Moodle site for the units.

Students have found the approach of highlighting key concepts particularly useful in approaching difficult problem solving concepts, with increasingly systematic approaches shown by students in workshops, as students find the bites an approachable method of identifying learning objectives.

- Developed and shared more than 60 ‘concept bite’ videos to support lecture material in all of my courses.
- Videos are hosted on YouTube, embedded in moodle and shared with direct link on lecture notes (below).
- Feedback from students has been uniformly good.
- Particularly good feedback coming from more advanced courses where problem solving and critical thinking is expected.
- Students find by clear emphasis of the core material they can approach problems systematically and algorithmically.

\begin{itemize}
  \item Problem identified
  \item Material assembled
  \item Audio recorded
  \item YouTube upload
  \item Link distributed
  \item Feedback
  \item Linked lecture notes
\end{itemize}

\begin{itemize}
  \item student suggestions based on lecture notes
  \item presentation software feature
  \item Email, Moodle
  \item for following year
\end{itemize}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{concept_bite_diagram}
\caption{Concept Bite Videos}
\end{figure}

3. http://my.rsc.org/blogs/85/1310

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youtube.com/fionadickinson or @chemfd